

Title (en)

SENSOR ASSEMBLY WITH SELECTIVE INFRARED FILTER ARRAY

Title (de)

SENSORANORDNUNG MIT SELEKTIVER INFRAROTFILTERANORDNUNG

Title (fr)

ENSEMble CAPTEUR À RÉSEAU DE FILTRES INFRAROUGES SÉLECTIFS

Publication

**EP 3133646 A2 20170222 (EN)**

Application

**EP 16180779 A 20160722**

Priority

- US 201562199928 P 20150731
- US 201514981539 A 20151228

Abstract (en)

An image sensor (270) includes both visible pixels (130R, 130G, 130B) and infrared pixels (130I). The visible pixels produce signals indicative of light within a visible band received by the visible pixels, and the infrared pixels produce signals indicative of light within an infrared band received by the infrared pixels. A selective infrared (SIR) filter array is integrated on the image sensor. The SIR filter array (260) includes SIR pixel filters that are positioned to filter out light within the infrared band propagating to the visible pixels. In this way, infrared crosstalk to the visible pixels can be reduced.

IPC 8 full level

**H01L 27/146** (2006.01); **H04N 23/12** (2023.01); **G02B 5/20** (2006.01); **G03B 11/00** (2021.01); **G03B 30/00** (2021.01); **H04N 23/75** (2023.01)

CPC (source: CN EP KR US)

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**H01L 27/14621** (2013.01 - EP US); **H01L 27/14649** (2013.01 - EP US); **H04N 23/11** (2023.01 - CN EP KR US); **H04N 23/55** (2023.01 - CN);  
**H04N 23/56** (2023.01 - US); **H04N 23/75** (2023.01 - US); **H04N 25/71** (2023.01 - KR); **G01N 2021/3133** (2013.01 - KR)

Citation (applicant)

- US 2009159799 A1 20090625 - COPELAND KEITH GARY [US], et al
- US 201113144499 A 20110927
- US 200913392101 A 20090825
- US 201213579568 A 20121015
- US 201213579569 A 20121015
- US 201313810227 A 20130115

Cited by

EP3493261A3; EP3709361A1; FR3059823A1; US11545515B2; US11153514B2; US11302729B2; WO2018104655A1; TWI715894B

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

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DOCDB simple family (application)

**EP 16180779 A 20160722;** CN 201610615735 A 20160731; JP 2016149271 A 20160729; KR 20160091352 A 20160719;  
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